The following instructions are sufficient for Workers of the

Straight Shuttle Machine

without any other assistance.

Whilst a second person reads the Instructions aloud, it is best that the person who is learning, practises each Paragraph separately on the Machine, and understands one part, before learning another.

Each Machine is delivered ready for use and provided with a sample of work.

Before using the Machine, observe the following: Unlock and half-open the drawer, and then lift the cover.

Every Machine is delivered with fly wheel disconnected; In case this is not so, it should be treated as when winding the Bobbin (see Fig. 3) so that the working of the Treadle can be practised without the Mechanism moving.

The Treadle.

Before commencing to sew, one must learn how to use the Treadle. The feet should be placed flat on the Treadle, with the instep in such a position as will enable toes and heels to be used with equal power in treading. Turn the upper fly wheel with the right hand towards the worker and move the feet evenly on the Treadle, first slowly, then quicker; begin and leave off often, till the action is perfect. When the movement of the Treadle is understood, practise the management of Material. Press the disconnecting lever *k* (see Fig. 3) upwards against the upper fly wheel, turn the wheel slowly with the right hand towards the Worker, let the lever snap into the slit of fly wheel, and the Mechanism will move. Now turn the fly wheel slowly to the Worker till the Needle-Bar is as high as it can be raised.

Lift the Cloth-Presser by means of Lever on the front plate, and draw the sample of work out backwards. Draw the upper Cotton back, and pull out the Left Slide over the Shuttle, and the Shuttle-Lever will cause the Shuttle to spring upwards; it should be taken out with the right hand.

Now place a piece of Material under the Cloth-Presser, which must be let down by means of the Lever.

First guide the Material straight, and then in curved lines under the Presser. Practise so long till the action is perfect. **The Material should glide under the foot evenly, and not be pulled or pushed, this being the chief cause of broken and bent Needles.**

The Driving Band.

The Leather Band which serves to drive the Machine, must always be stretched sufficiently tight, but not too tight, or the Machine will run heavily. In this case it can be loosened by stretching with the hand.

Should the Band be too loose, the ends must be cut a little, and then joined again with the little Hook.

The Cleaning and Oiling of the Machine.

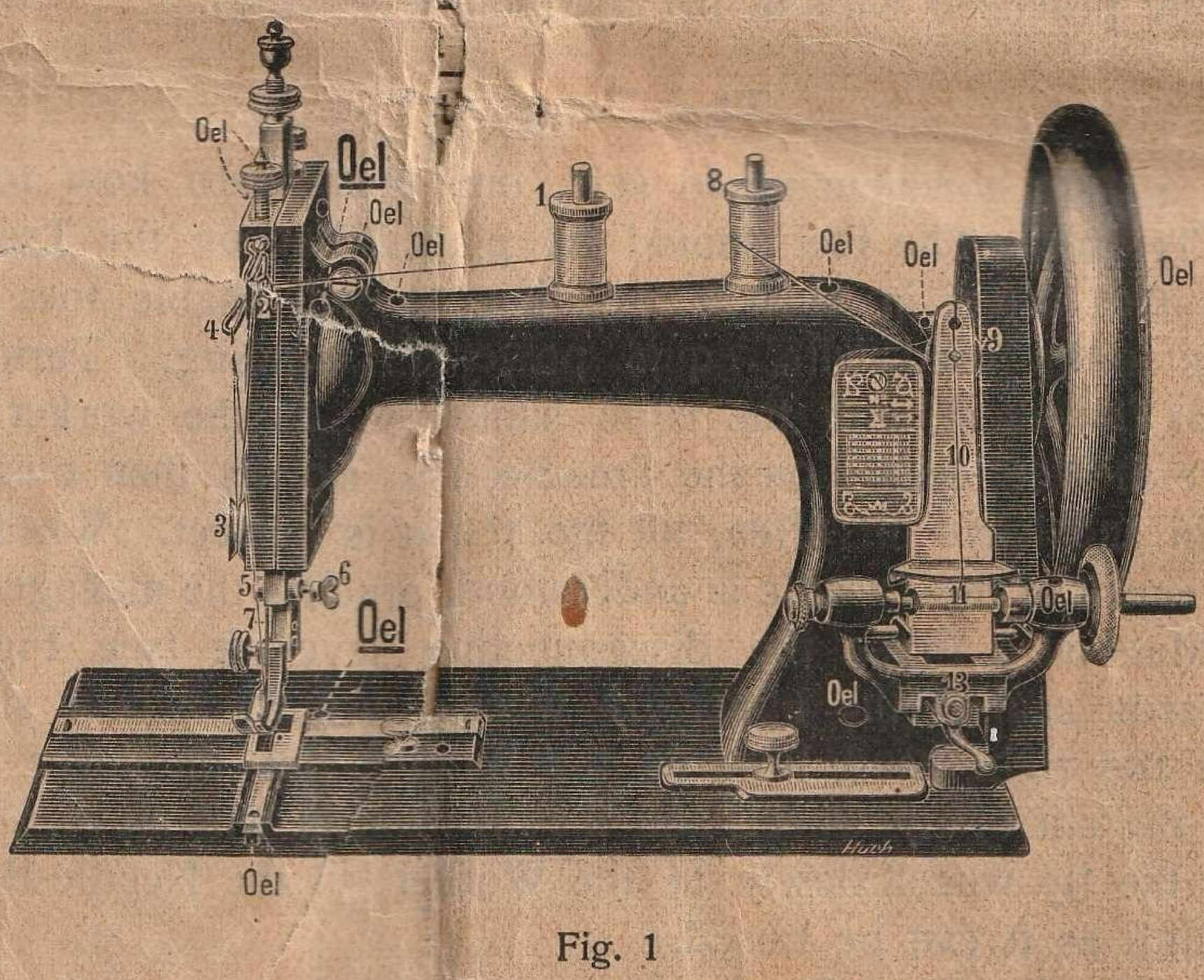


Fig. 1

Top View of the Machine.

A Machine in constant use requires oiling with the best Machine Oil, once or twice a day. Let a drop of oil trickle out of the Oil-can (given with each Machine) into all the Oil

Holes (Fig. 1). The word **„Oel“** on Figs. 1 and 2 shows the most important parts which require **most** and **frequent** oiling.

To oil the inside parts which are subject to friction, remove the Driving Band from wheel, and turn the top part of the Machine over (Fig. 2). To remove Driving Band from

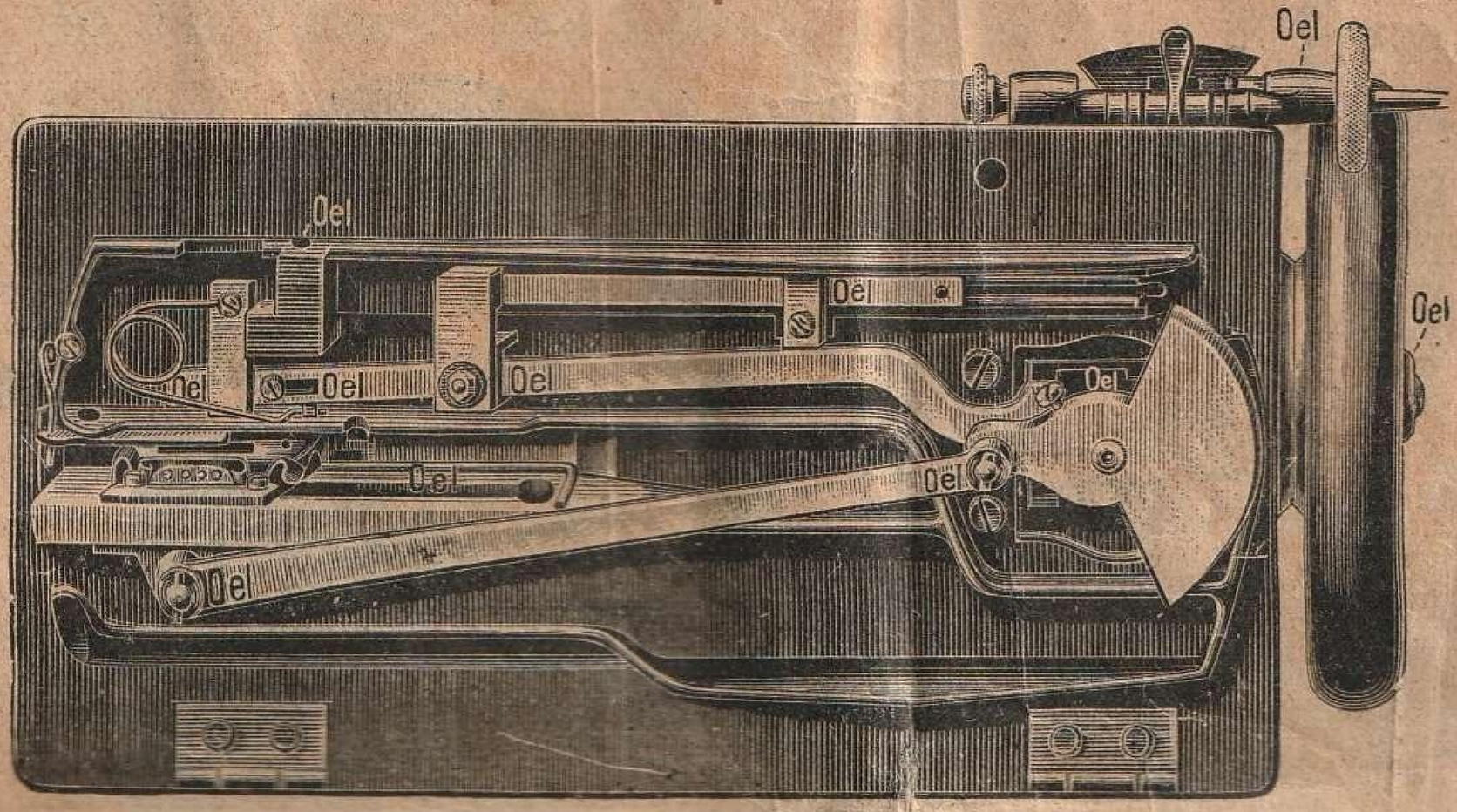


Fig. 2.

Inside View of the Machine.

Under Fly Wheel, pull it from Right to Left. To replace the Band, it must be put in the groove behind the upper Fly Wheel, then drawn through the two holes in the Table and round the under Fly Wheel.

If the Machine has not been used for a period, or if some parts requiring oil have been forgotten, or if the Oil has become thick, it will not run easily.

In this case, after the Top part of the Machine has been placed in its proper position again, oil all the oil holes with **Paraffin,** or Kerosene-oil (which dissolves all dirt) and raise the presser, and work the Machine quickly backwards and forwards; then wipe off the dirty oil wich will run out, and clean thoroughly, and oil afresh with usual Machine Oil. Oil having become thick may be diluted with a little Kerosene-oil.

Only the best Oil and Needles purchased at same place where the Machine has been bought, should be used, as on these the good working of the Machine greatly depends.

The Self-Acting Bobbin Winder.

To Use.

a) To disconnect the upper Fly Wheel.

Before winding the Bobbin, disconnect the upper Fly Wheel by pressing the Lever *k*, and pull out the Hand Wheel. This

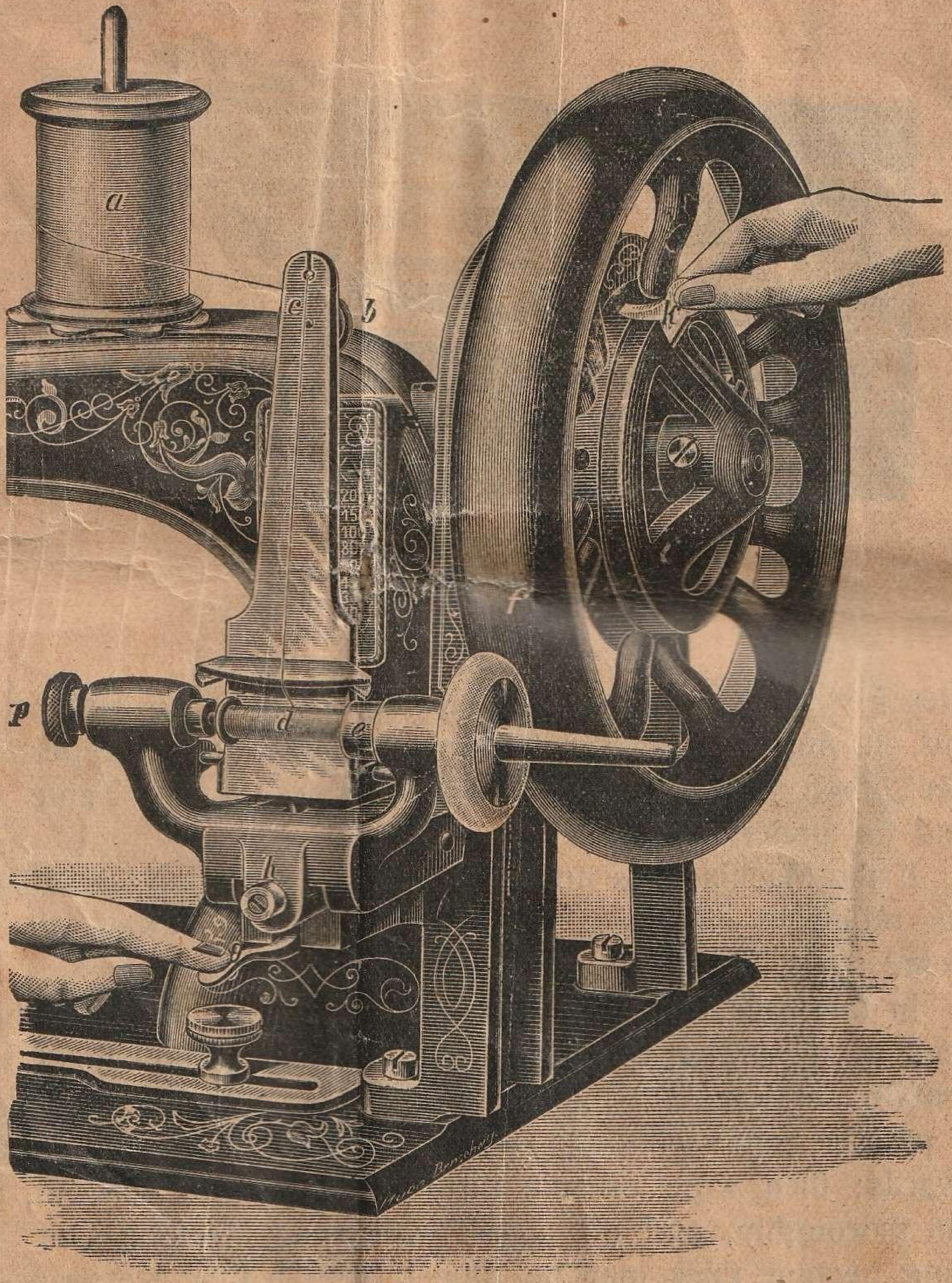


Fig. 3.

done, the upper Fly Wheel can be driven without moving the whole mechanism. Should the upper Fly Wheel, after having been disconnected, move after all along with the other Mechanism,

then trickle some Kerosene-oil into the Oil Hole of the Hand Wheel (the hole marked red), press down the Needle-Bar with the left hand, and with the right hand turn around the Hand Wheel several times. The Kerosene-oil will soon dissolve the thick oil or dirt accumulated in the bearing of the Hand Wheel.

b) To Thread the Self-Acting Bobbin Winder.

Place the Cotton Reel *a* on the spindle nearest the upper Fly Wheel; take the end of Cotton between the fingers of the Right Hand and draw it trough the tension discs *b*, and from thence through the slit in the perpendicular Cotton Guide *c*.

c) To Set the Bobbin.

Take the Bobbin *d* with the hole in brass disc turned to the Right, and place it thus, with its point into the centre of the well in Winder *e*, taking care that the small hole in the brass disc fits into the corresponding little pin on the Bobbin Winder. With the Left Hand draw the knob *p* to the Left side, sufficiently to allow the other point of bobbin to drop into its place on the Winder. When the Bobbin is thus set, press with the Left Hand the Bobbin against the pin *p*, so that the brass disc of Bobbin is slightly distant from the Winder *e*; place the end of Cotton in the opening thus formed, and remove the hand from Bobbin; the Cotton is thus secured for winding.

d) To Set Bobbin Winder in Motion.

A **strong pressure** on the Lever *g* is sufficient to connect the Winder with upper Fly Wheel, which must be turned to the Right to start the Machine, and then work the Treadle in the usual way, till the Bobbin is filled, when the Winder disconnects itself from the upper Fly Wheel. The Mechanism of the Machine is not moved when the Bobbin is being wound.

e) To Remove Bobbin from Winder.

To easily remove the Bobbin, press down the Lever *g* with the right hand, push the Cotton guide *c* backward, and then let the Lever go. The Guide is thus distant enough from the Machine to allow the Bobbin to be easily set or removed.

f) To Regulate the Filling of Bobbin.

After long usage it is possible that the Winder stops acting before the Bobbin is quite filled. In this case, turn the regulating screw *h* to the Right till the Winder is at its original height. Should the Bobbin be too full, turn the screw *h* round to the Left.

g) To Oil the Bobbin Winder etc.

To keep the Winder in good condition, slightly, oil it by means of the oil hole over the Winder *e* (Fig. 3). **A new Bobbin** must always be slightly **oiled** on the **left point** before using the first time.

To Set the Needle.

The Needle has on one side a **long,** and on the other side a **short groove.**

The exact adjustment of the Needle is of the greatest importance, and therefore care must be taken that the following directions are correctly carried out, when setting the Needle.

Turn the upper Fly Wheel slowly towards you till the **Needle-Bar is at its highest point,** and then loosen with the right hand the screw which secures the Needle.

Take the needle between thumb and forefinger of the left hand, and push it from below into the slot of the needle-yoke, now turn the fly-wheel towards you till the horizontal slit, marked in the upper part of the needle-bar is entering in the head, **adjust the needle so that one half of its eye is to be seen above the needle plate,** taking care that the long groove in the needle is turned towards the operator.

Screw the Needle firmly in this position, care being taken, that it ascends and descends exactly in the middle of the needle-plate hole. If the Needle be set **too low,** stitches will be **dropped,** or the **Needle** may be **broken.**

When the Machine is constantly in use, the position and motion of the Needle should be examined daily; if the point be blunt, or rough, it should be sharpened on the emery-stone which must be placed on the Bobbin Winder. In sharpening

care must be taken that the point is not ground flat, but finely, and equally on all sides. Should the eye of the Needle be sharp, so that is cuts the Cotton, draw a coarse thread dipped in fine emerypowder and oil through it backwards and forwards, until it becomes smooth. It is to be recommended that Needle and Cotton are suitable to each other, and that only Needles and Cottons of good quality are used.

The following Table shows which Needles are used to suit the various Numbers of Machine-Thread in Cotton, Linen and Silk.

Cotton-Thread №	Needle	Linen-Thread №	Needle	Silk-Thread №	Needle
90—150	№ 9			0000	№ 9
60—90	„ 10			000—0	„ 10
40—60	„ 11			0AB	„ 11
30—40	„ 12			BD	„ 12
20—30	„ 13	60—70	№ 12	DE	„ 13
10—20	„ 14	40—60	„ 13		
		35—40	„ 14		
		30—35	„ 15		

The Machine has an extra Needle-Plate with large hole which must be substituted for the other when working thick Materials with a coarse Needle, such as tailoring etc.

To Thread the Needle.

When the Machine is unpacked, the manner in which the Needle is **threaded** should be **carefully noted,** in order to be able to afterwards rethread it in same way (Fig. 1). Place a reel of Cotton on the **Cotton Spindle 1;** with the left hand draw the end of Cotton through the hook 2; then draw it downwards between the tension discs 3; then in the slit of the Cotton Lever 4; and then upwards through the Cotton-Lever

Hook 5 on Needle-Bar; and lastly from front to back through the Needle-eye.

About an inch of Cotton should be on the Needle-Plate before commencing to sew.

To Set the Improved Shuttle.

Before working the Machine, notice how the Shuttle is threaded. First slightly oil both ends of bobbin.

To place the Bobbin in the Shuttle proceed as follows: Hold the Shuttle with its pointed end towards you, and place the end of bobbin not having the hole, into the spring centre, and gently press the other point down the groove into the socket at the square end, till it lightly snaps. The Cotton must be drawn upwards through the spring No. 1; then through the slit of spring 2; draw the Cotton towards the point and round

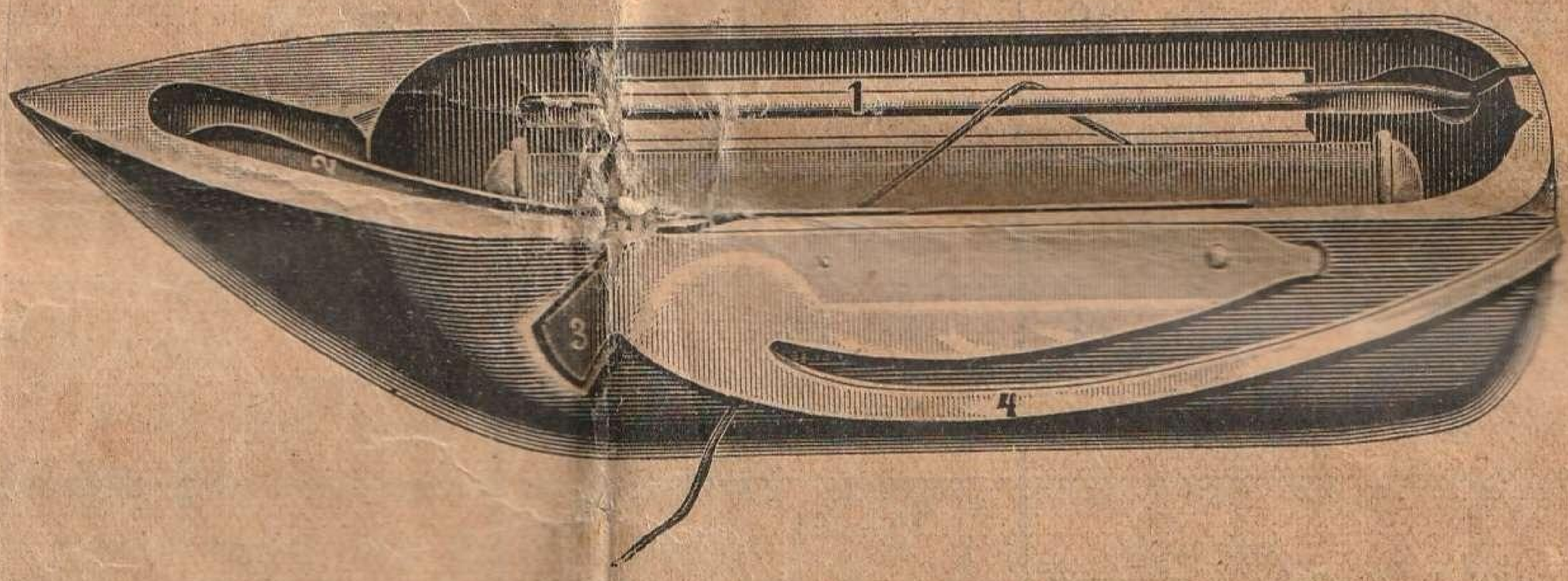


Fig. 4.

the Nose of the Outside Spring 3; in doing so the Thread slides under the said Spring and the Shuttle is threaded. The tension is regulated by turning the screw on outside of the pointed end of shuttle; to **tighten** turn to the **Right,** to **loosen** turn to the **Left.** A screwdriver for Shuttle Tension is given with each Machine.

To Sew.

Never sew or turn the wheel of Machine whilst the Shuttle-Slide is open, or the shuttle will spring out and ruin the Machine.

When both Cottons are threaded as described before, observe the following directions: Place the Shuttle in its carrier with its point towards the Needle, and the side with spring

uppermost so that the spring shows when shuttle-slide is open. Pull out the Cotton about two inches, close the shuttle-slide, taking care the Cotton is not cut by the slide being too tightly closed, draw the upper Cotton about two inches through the needle-eye: **hold the end of upper Cotton with the Left hand,** and with the Right turn the upper Fly Wheel round once, so that the Needle descends and ascends again to its highest position, by which means the Under Cotton is drawn through the Needle-Plate in a loop, which must be drawn out; raise the presser, **and put both Cottons behind the needle** — from the worker. Now place the work under the presser-foot, which then drop slowly, and begin to sew.

With the Left Hand hold both ends of Cotton, and with the Right Hand turn the upper Fly Wheel slowly till two or three stiches are made, so that the Machine is set in regular motion. The ends of Cotton held with the Left Hand, must be let gone now. **Guide the work, but be careful not to pull or push it, or the Needle will break.** When turning corners, leave the Needle in the Material, lift the Cloth-Presser by means of the Lever, turn the Material round the Needle, and then drop the presser.

When sewing over thick parts or cross seams, sew slowly, and turn the upper Fly Wheel with the hand so that the Needle does not bend or break.

To remove the work, raise the Needle to its highest point, and lift the Cloth-Presser so that the Cotton can run freely through the eye of the Needle without bending it. Now draw the Material away **to the Left, slightly raising it,** and cut the Cotton on the small Cotton Cutter, which is to be found on the Cloth-Presser Bar. Carefull observance of this rule will prevent the breaking of many needles.

Should the Under Cotton (in Shuttle) break when removing work, take the Shuttle out, draw out the Cotton about 2 inches, and proceed as before.

To Regulate the upper Cotton Tension.

The Regulation of the upper Cotton requires careful attention, as the perfection of the stitch depends on it.

It must be so regulated that both Cottons are uniformly drawn together, and joined in the middle of the Material. The Tension is regulated by a screw on the Needle-Bar, opposite the worker. To tighten tension turn this screw to the Right; to loosen turn it to the Left. As this tension screw affects the stich immediately, it must only be slightly turned. After stitching a little, examine both sides of the Material. If loops appear on the Under surface of Material, or if the Under Cotton lies flat on it, and is not drawn up into it, the **upper Tension is too loose,** and the Tension Screw must be turned ➶ to **the Right.**

If the work is puckered and the upper Cotton often breaks, or lies flat on Material, the Tension in **too tight,** and the tension screw must be turned to ➷ **the Left.**

If the Tension of **upper and under Cottons be equal,** the **upper and under Stitches** will also be **equal and good.**

To Regulate the Length of Stitch.

To the Right hand of worker, in front of arm, on the foundation plate is a thumb screw (Fig. 3) which serves to regulate the **Length of stitch.** If this screw is loosened and pushed to the Right, the stitch is made longer; if pushed to the Left, smaller.

A few trials show the result at once. Tighten the screw as soon as the stitch is adjusted to the required size.

Special Instructions for the use of the Guides and Attachments.

The Guide and Thumb Screw.

To keep a seam perfectly straight, screw this Apparatus into **the hole on Bed-plate;** and adjust its straight edge to the same distance from the Needle, as the seam is to be from the edge of work. If the seam is required quite close to the edge of Material, the Edge Sewing Foot especially supplied with the Machine (see Fig. 9) must be used.

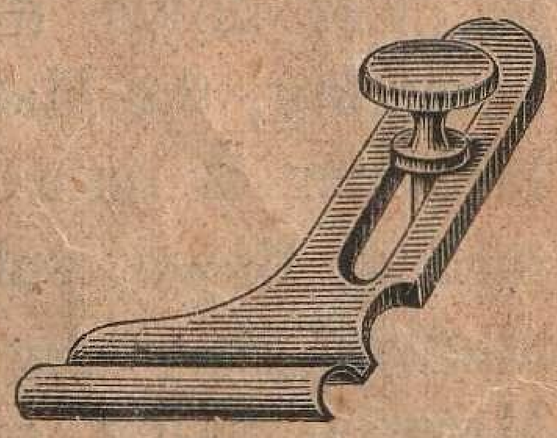
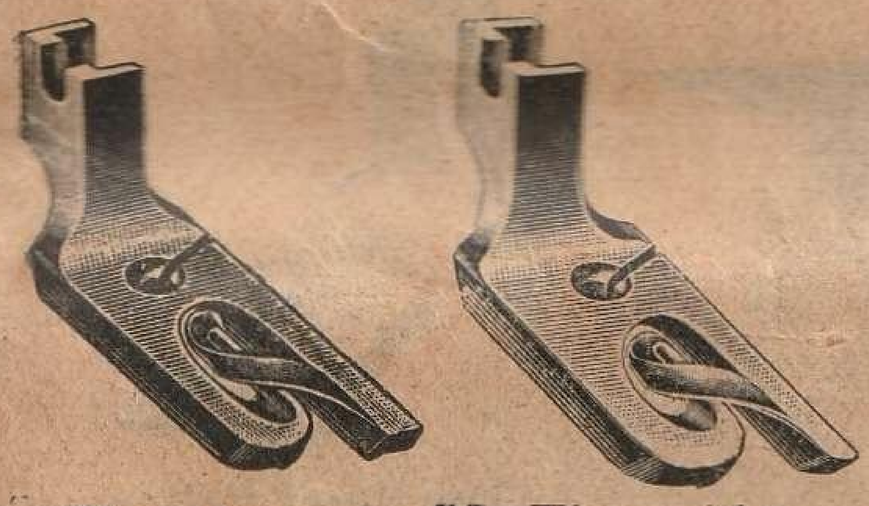


Fig. 5.

This Apparatus is useful for sewing pleats and tucks and also to sew seams at equal distance from each other, thus saving the trouble of tracings.

The Narrow and the Wide Steel Hemmer.



The narrow Steel Hemmer. The wide Steel Hemmer

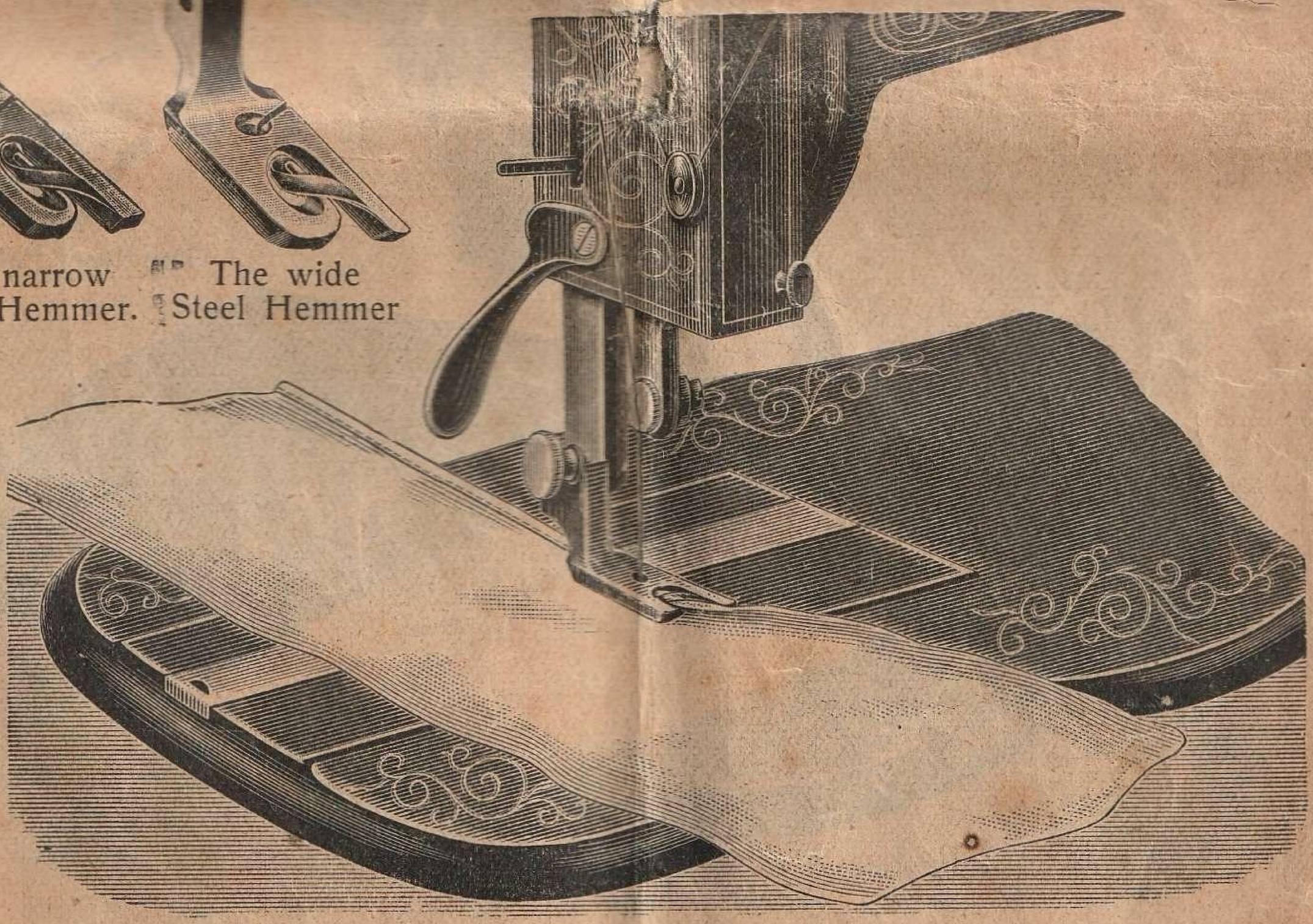


Fig. 6.

These Hemmers are secured in the place of the ordinary Cloth-Presser as shown above. The end of the Material to be

hemmed, after being turned down about $^1/_8$ of an inch, is placed in the twist of the Hemmer (as shown by above illustration), and being guided straight under the Needle, the Material comes out with a double hem beautifully turned down. The Material must first be pulled by means of a thread, or pushed forward with a pin far enough for the Needle, to catch it. Let down the Presser, and begin to sew carefully. In hemming, the Material must be guided so that the mouth of the Hemmer is quite filled up, in order to permit the hem to be turned down sufficiently. Too much Material must not be allowed to enter; this defect would easily arrive from the Material being pressed more or less inwards, whilst entering the Hemmer.

A few trials will soon show the right way to use these useful Attachments. The Hemmer must always cause the stitches to be made close to the edge of the hem.

The Steel Feller.

Fig. 7.

The Steel Feller.

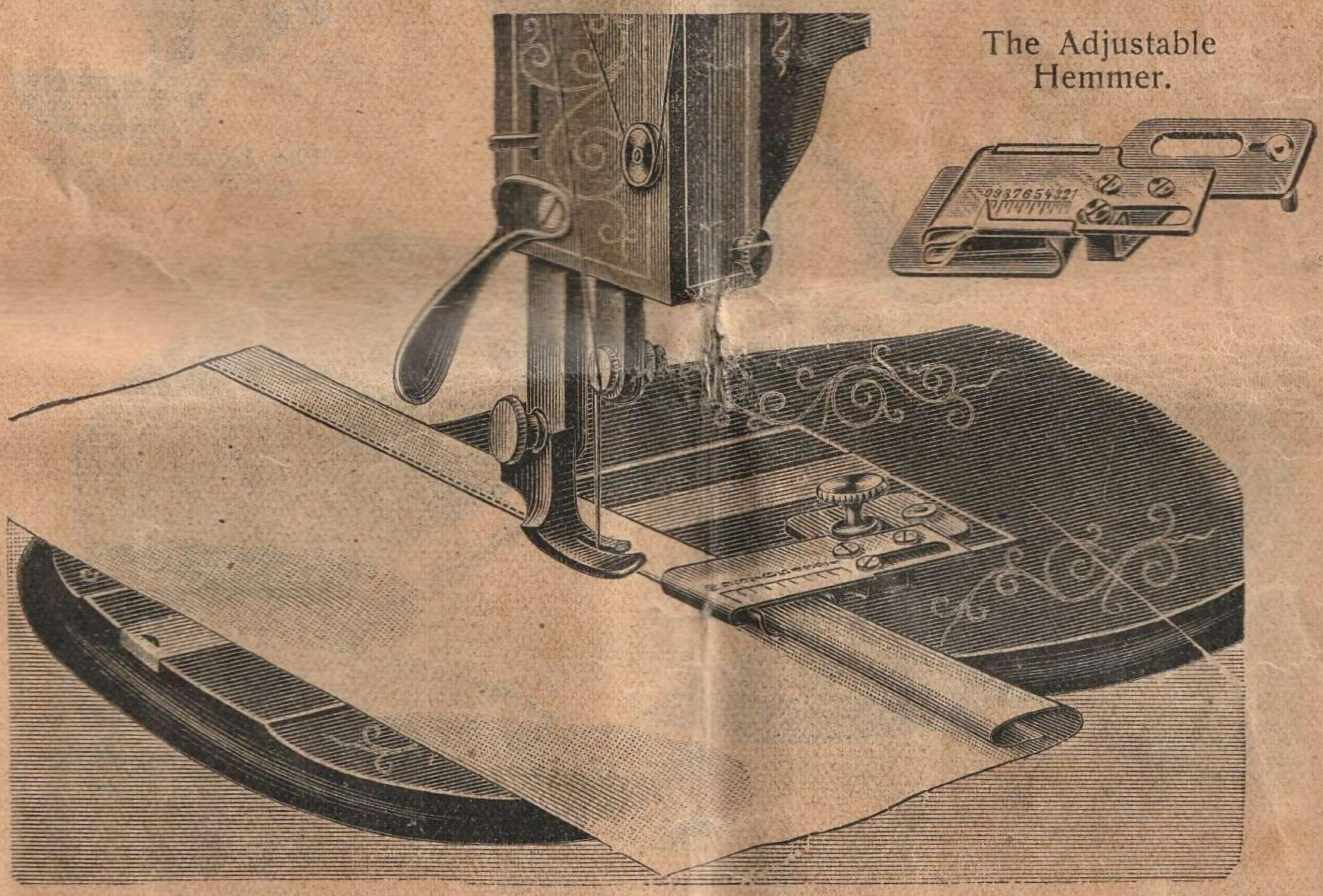
The Feller is screwad on to Machine in same way as the Hemmers. To fell a seam, lay the two Materials together, but

let the edge of the Upper piece project about ¼ of an inch. This projecting edge only must be run through the seam Feller, and in this way the two pieces are joined.

This done, spread the work out; smooth the seam, and pass the upright edge, which is now formed, again through the feller, and a most accurate seam will be formed without guiding.

The Adjustable Hemmer.

This Attachment must be tightly screwed on the Machine with the thumb screw in same way as the guide. To introduce the Material, turn down its edge about ⅜ of an inch, and then



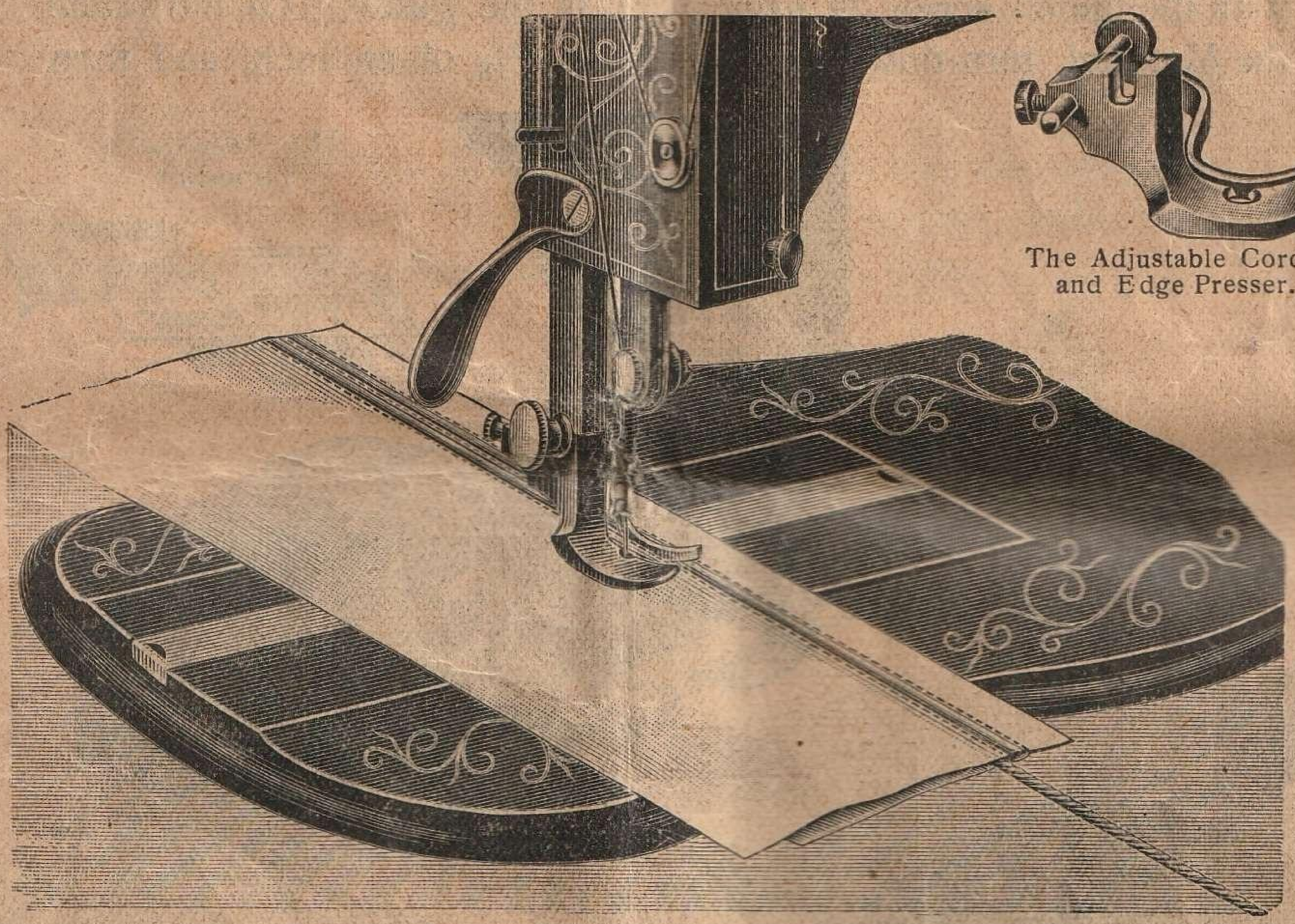
The Adjustable Hemmer.

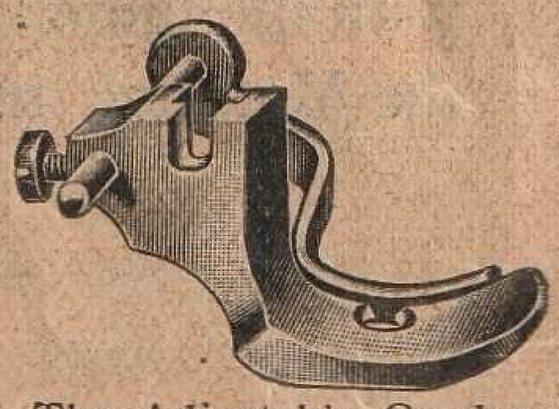
Fig. 8.

draw it according to width of hem required through the hemmer, under the Needle. Care must be taken to allow sufficient Material to enter fort the hem, to be turned double. To adjust this Hemmer for hems of different widths, loosen the screw in the slit a little, which will release the graduated plate. The smallest hem is formed when the index points to 0; the higher the Number, the wider the hem. The screw must be secured again before sewing.

The Adjustable Corder and Edge Presser.

This Corder is fastened to the Machine, as shown above and is used for sewing Cords in Shirts, Collars, and Cuffs etc. This Apparatus has an Adjustable Guide on its Right side, which can be regulated according to the width of Cord being used. The Cord must be placed between the Material, and a mark made on the Material, beside it, with any sharp instrument. Place the work under the Corder in such a way that the Cord





The Adjustable Corder and Edge Presser.

Fig. 9.

is between the edges of the Presser and the Guide, and being pressed by these, the work receives a beautiful raised appearance. In sewing several rows of Cord parallel to each other, the first sewn goes on the right side of the guide; the second Cord goes immediately under the Needle.

This Apparatus can also be used for sewing on borders or braids.

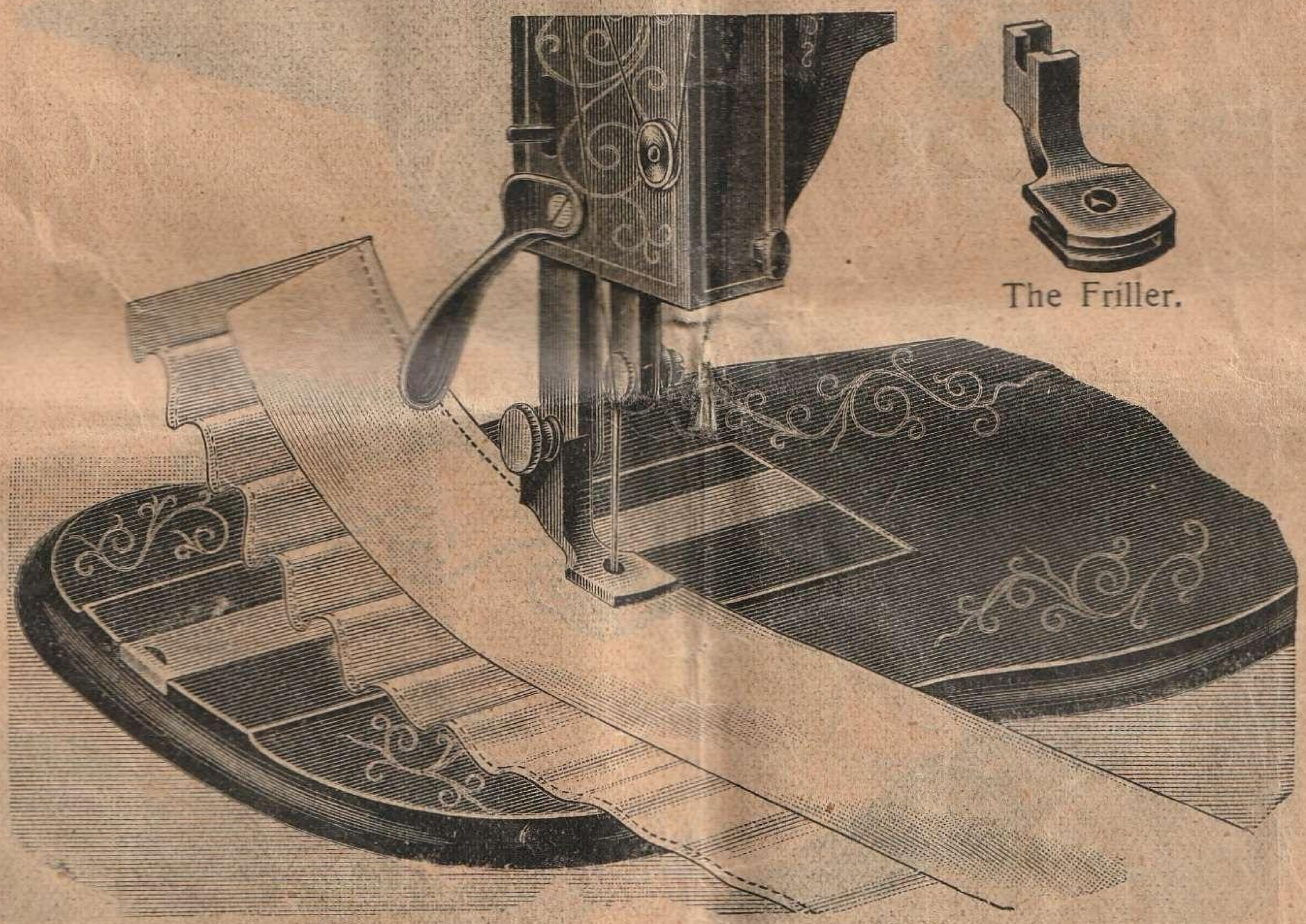
Place the border or braid under the Presser; place the guide on edge of braid, and be careful when sewing that the

braid be at always the same distance from the guide. To sew on other side of braid, turn the Material round, and sew as before.

When using the edge presser, loosen the screw, and pull out the guide before sewing.

The Friller.

This Apparatus is most useful; with its help a piece of Material may be frilled and a band sewn on at one time. This



The Friller.

Fig. 10.

like the other Attachments, is fastened to the Machine by the thumb screw.

Place the Material to be frilled underneath the Presser and the band above through the slit in the Friller. As the teeth-points work only upon the Under Material, the Upper is protected from them by the slit. The Under Material is gathered in small pleats. The longer the stitch, the fuller the pleat. The management of this Apparatus requires some practice.

The Adjustable Braider.

With this Apparatus braids and cords of any breadth and thickness can be sewn on the Material.

Wind the braid, or cord, as smoothly as possible on an ordinary wooden reel. Place the reel on cotton spindle, and proceed as shown in the illustration below. This braiding

The Adjustable Braider.

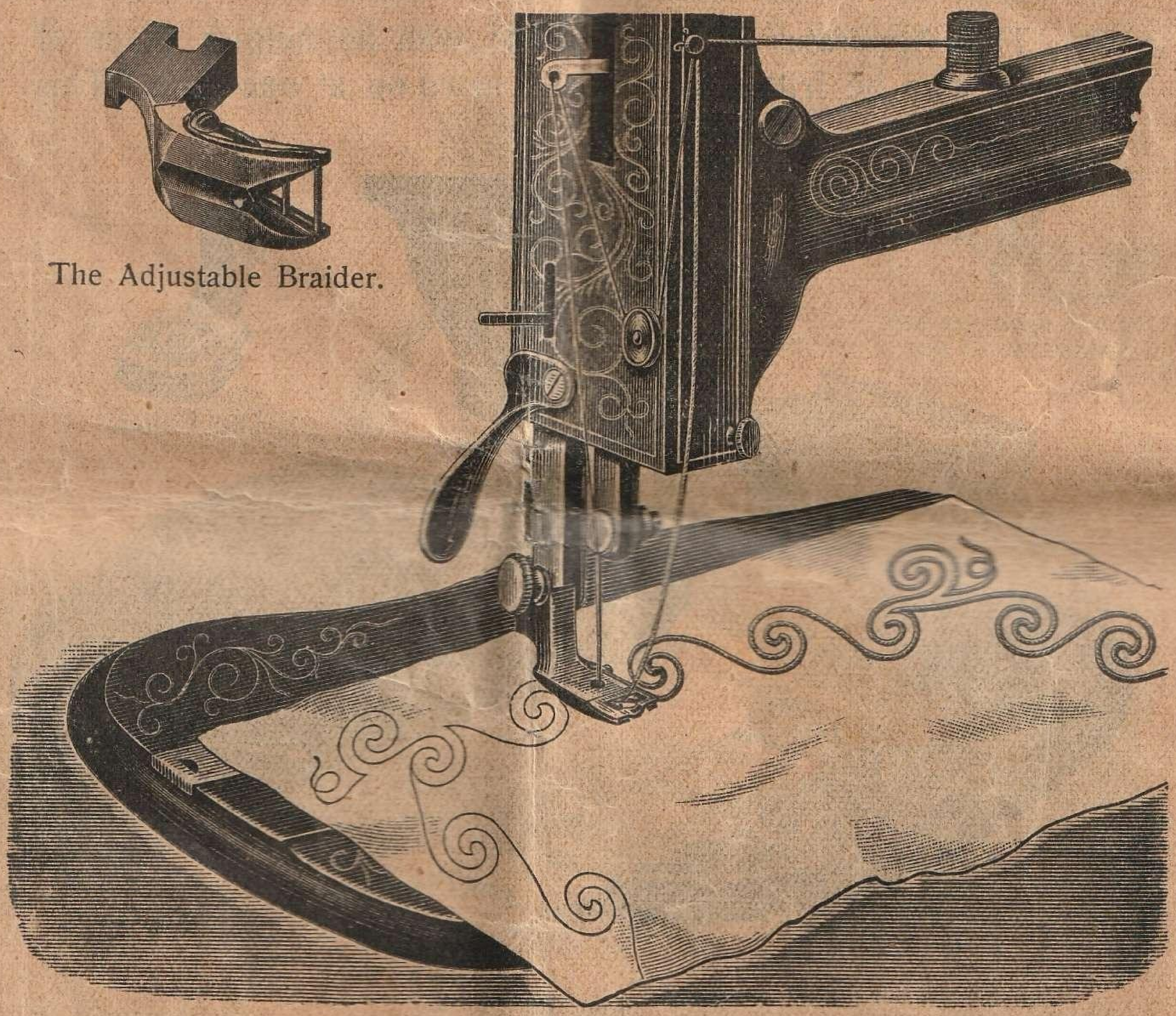


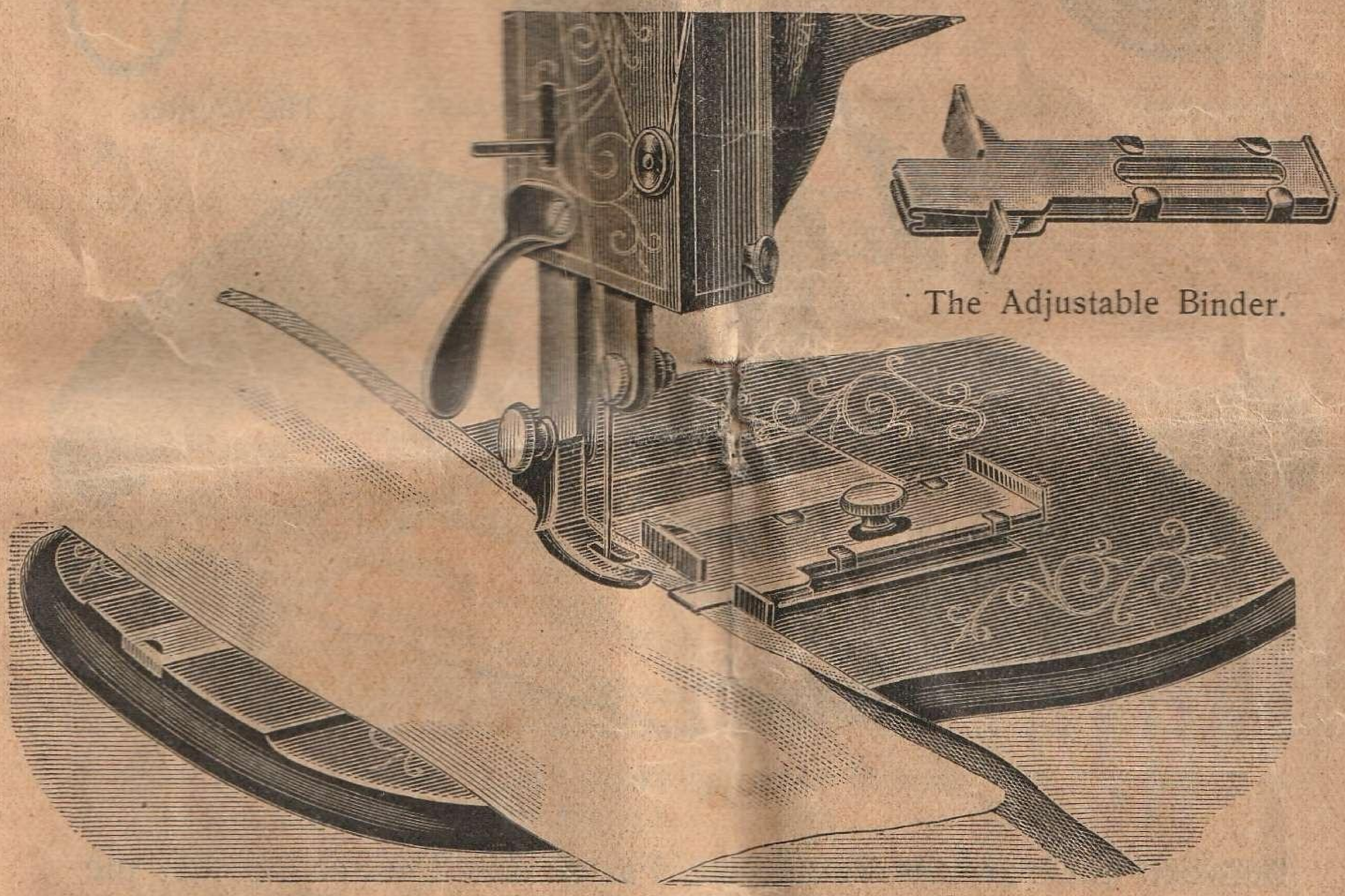
Fig. 11.

attachment has an adjustable plate in front of the needle-hole, through which the braid or cord is drawn so as to pass right under the Needle. The size of the opening may be regulated by means of the screw at the side, which can be pushed either backward or forward.

The adjustable Braider also serves as **Corder,** i. e. to sew a cord round the edge of skirts, for which purpose the

Apparatus has a large groove on its under-surface. After the dress Material and lining have been sewn together in the usual way, spread them out with the right side uppermost; lay the cord in the groove of the presser, and sew with rather large stitches exactly over the seam, that is to say between the Lining and Material. Rather strong Cotton should he used. When the Lining is turned up, the Cord will be at the edge of the skirt.

The Adjustable Binder.



The Adjustable Binder.

Fig. 12.

This Attachment is used for binding articles of clothing, hats, shoes, cap peaks etc., without tacking on the binding first. Loosen the screw, and adjust Binder to the width required, and then fasten it to the Machine with the thumb screw.

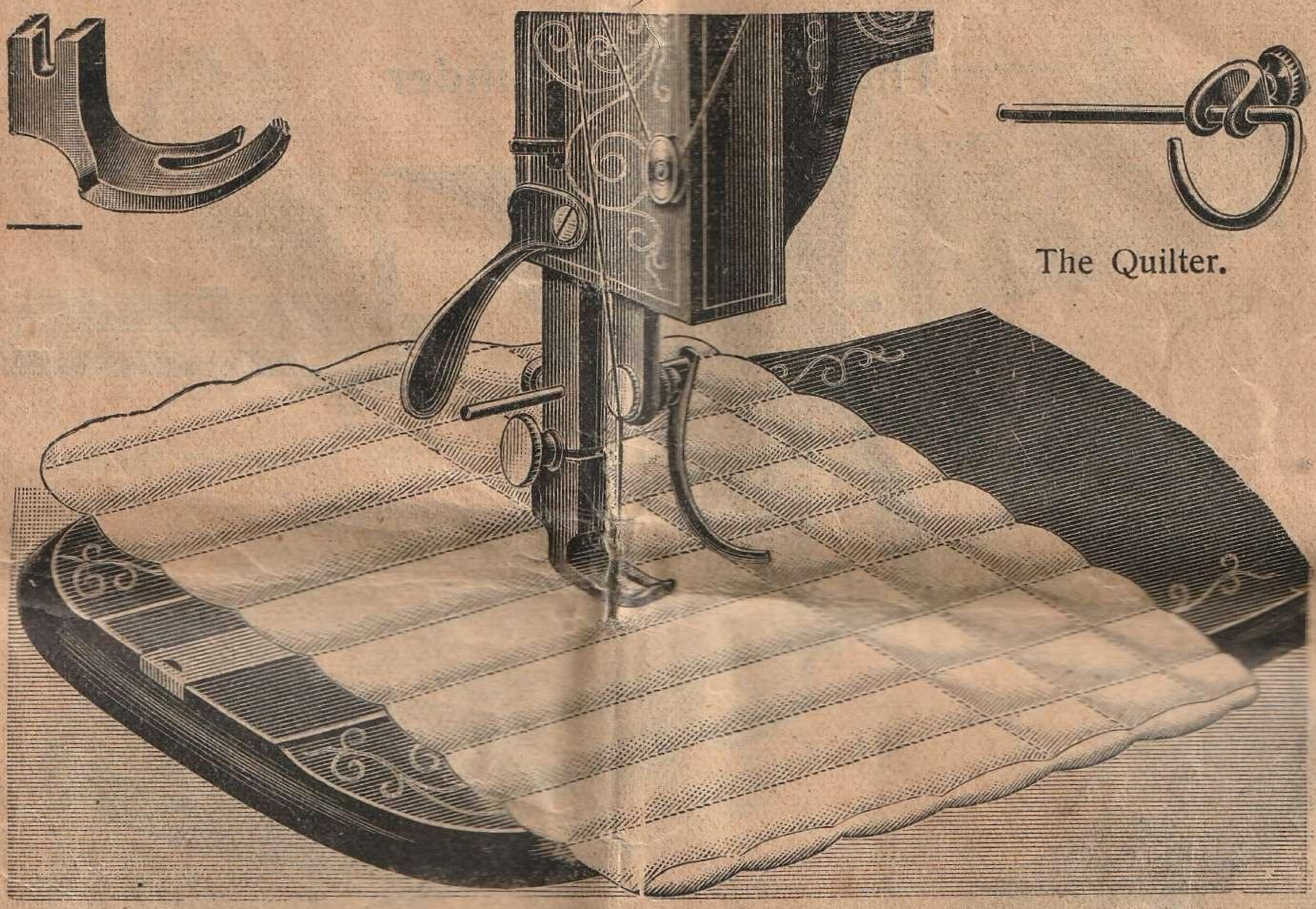
Place the binding between the two hooks so that it just moves easily, then tighten up the binder, so that the binding is secure.

Place the Material under the Presser, between the plates and hooks, which hold the binding, and sew as usual.

The Quilter.

This is a very necessary and useful Apparatus, as much time is saved, no tracings bein required.

When using it, first make a straight seam, and then draw the Material as far to the Right from the Needle, as the width



The Quilter.

Fig. 13.

between the rows is required. Fasten the Quilter so that the lower part is on the first row of stitching whilst the second is being sewn; the Quilter must follow the second row whilst the third is being sewn etc. The same with the cross seams. The best squares are made if the Material be stitched on the wadding itself without lining.

The following Attachments are supplied with each Machine free of charge:

6 Shuttle Bobbins,
12 Needles (assorted),
1 Guide with Thumb Screw,
1 Adjustable Hemmer,
1 small steel Hemmer,
1 wide steel Hemmer,
1 steel Feller,
1 ordinary Cloth-Presser,
1 Adjustable Corder with Quilting and Edge-Presser,
1 screw-driver,
1 Adjustable Braider,
1 Ruffler,
1 Adjustable Binder,
1 Quilter,
1 Extra Cotton-Lever Spring,
1 Needle-plate with wide hole,
1 Screw-Driver,
1 Small Screw-Driver for Shuttle,
1 Oil-Can,
1 Emerystone,
1 Instruction Book.

With the Machines Saxonia small model, Saxonia A & B, Medium and Titania only the necessary attachments are supplied.

Instructions for Keeping the Machine always in Proper Order.

If the Material is not moved evenly:

1. The Cloth-Presser is not quite down.
2. The Material is in some parts not of even thickness, or there are cross-seams to pass.
3. The upper Cotton is too loose, causing long loops which remain in the Needle-Plate Hole.
4. The teeth of feed do not push the work forward with regularity, as they are not high enough above needle-plate.
5. The opening of needle-plate is dirty, and the under part is filled with bits of Cotton.

If the Cotton often breaks:

1. The eye of needle is sharp and cuts.
2. The Needle is not exactly in the Middle of the Needle-Plate Hole.
3. The Needle is set too low or too high, or the long groove is not immediately facing the worker,
4. The upper Cotton Tension is too tight.
5. The Needle is too fine for the Cotton.

If the Seams are uneven:

1. The upper and under Cottons are not of equal Thickness, the Material unevenly woven.
2. The Shuttle Bobbin is unevenly wound.

If Stitches are dropped:

1. The Needle is set too low or is crooked.
2. The Needle is too fine for the Cotton.
3. The Machine is not well oiled, is dirty and runs heavily.
4. The Needle canal is filled with oil and dirt, so that the Catton cannot move freely.

If the Needles break:

1. The Needle is bent or crooked.
2. The Cotton is knotty or uneven.
3. The Material has been pushed or pulled.
4. Care has not been taken in sewing cross-seams, to sew slowly, stitch by stitch, and the Cloth-Presser has not been raised when necessary.

Should from different causes the Machine cease working and should it be impossible to readjust its Mechanism on the hand of this Instruction-Book, — then have the Machine set in order either by the Seller or direct by the Factory. Care should be taken not to deliver the Machine into the hands of Stranges, who might easily ruin it by not understanding its Mechanism — or who might ruin it with intention.

The Cloth Fastener with Pincushion.

(Registered.)

By the addition of this Attachment the Machine is brought to perfection. The various parts of the work can by its use be reached without the worker being compelled to leave the Machine; thus saving time and trouble.

To Use the Cloth Fastener.

With the right hand press the Button under the Table, so that the Upper Plate with pincushion attached is raised from the Under Plate.

Then place the Material between the two plates, and let the Button go. Materials can also be pinned on the pincushion. This cushion is especially handy for needles and pins, as they are then always in readiness for the worker.

Thank you

This **Saxonia** sewing machine instruction manual was made by Alexandre Dumont (adumont@gmail.com) thanks to photos contributed by Rachel Walden from **Sew Nostalgic UK**.

SewNostalgicUK

Shop Vintage sewing machines and related items. by SewNostalgicUK located in Warminster, United Kingdom. Smooth shipping! Has a history of...

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https://sewnostalgicuk.etsy.com

The following instructions are sufficient for Workers of the
Straight Shuttle Machine
without any other assistance.
Length of Stitch.
Regulate upper cotton
Screw on left on Needle bar
Tighten screw to Right
Loosen " to Left.